

REMARKS

The last Office Action has been carefully considered.

It is noted that the drawings are objected to, the disclosure is objected to and the claims are rejected for formal reasons under 35 U.S.C. 112.

Claims 1-20 are rejected under 35 U.S.C. 102(b) or 103(a) over the patent to Red.

In connection with the Examiner's formal objections, applicants have submitted a flow chart illustrating the inventive method. The Examiner is respectfully requested to review the same and to approve the same whereupon applicants will be pleased to submit the formal drawing.

In connection with the Examiner's rejection of the claims, applicants canceled claims 1 and 9, the broadest method and apparatus claims, and instead submitted claims 21 and 22. The retained dependent claims have been amended to depend on the new claims.

As for the Examiner's question with respect to the terms "poses", it is believed that this term is explained in the specification. In

particular, in the full paragraph on page 12 as well as in the paragraph bridging pages 12 and 13.

Before the analysis of the prior art it is believed to be advisable to explain to the Examiner the subject matter of the present invention as defined in claims 21 and 22.

In accordance with the present invention, a multi-axes processing device having at least one processing head is operated for improving its position accuracy. In particular, position changes of the processing device and the associated processing head are controlled by computer means. An exceptionally important feature of the present invention is that in addition to the work region the calibration region is provided and formed so that the processing device and the associated processing head during running through the work region and through the calibration region assumes substantially the same or similar work poses. The actual work poses of the processing device and the associated processing head are detected and compared with nominal work poses. In the event if there are deviations of the actual work poses from the nominal work poses, the processing device with the associated processing head moves into the calibration region, and the adjustment of the work poses is performed.

It is well known from the prior art to calibrate multi-axial processing devices in a calibrated area which is situated outside of a fabrication process, e.g. an assembly line base fabrication process, and in which calibration region work poses are different from the work poses of the processing device and the processing head in the work region. These calibration procedures have the disadvantage that the processing device (the fabrication robot) is calibrated in a position which does not correspond with its work pose. Therefore, the bearing and position tolerances differ significantly from each other in both positions.

In contrast, the present invention suggests to calibrate the processing device and its processing head in the same poses as adapted in the work position. The method and the apparatus in accordance with the present invention therefore increase the positioning accuracy of the processing device and its associated processing head.

The above mentioned new features of the present invention are specifically defined in claims 21 and 22 which have been drafted in accordance with the Examiner's requirements, to recite all necessary steps illustrating the present invention.

Turning now to the reference and in particular in the patent to Red, it can be seen that this reference does not teach the new features of

the present invention as now defined in claims 21 and 22 since the reference discloses a well known method and apparatus, without the above mentioned new features of the present invention.

As for the anticipation rejection applied by the Examiner, it is believed that it should be considered as no longer tenable with respect to claims 21 and 22. In connection with this, it seems to be advisable to cite the decision in re Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 221 USPQ 481, 485 (Fed. Cir. 1984) in which it was stated:

"Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim."

Definitely, the patent to Red does not disclose each and every element of the present invention as defined now in new claims 21 and 22. It is therefore respectfully requested to withdraw the anticipation rejection.

As for the obviousness rejection, it is respectfully submitted that the new features of the present invention which are now defined in claims 21 and 22 are not only not disclosed in the patent to Red applied against his original claims, but also can not be considered as obvious from this reference. The reference does not contain any hint or suggestion for such features. In order to arrive at the applicant's invention as defined in claims 21 and 22, the reference has to be fundamentally modified by including into

it the new features of the present invention. However, it is known that in order to arrive at a claimed invention, by modifying the references the cited art must itself contain a suggestion for such a modification.

This principle has been consistently upheld by the U.S. Court of Customs and Patent Appeals which, for example, held in its decision in re Randol and Redford (165 USPQ 586) that

Prior patents are references only for what they clearly disclose or suggest; it is not a proper use of a patent as a reference to modify its structure to one which prior art references do not suggest.

Therefore it is believed that the obviousness rejection applied by the Examiner against the original claims should also be considered as not tenable with respect to claims 21 and 22 and should also be withdrawn.

As explained herein above, the present invention provides for the highly advantageous results which can not be accomplished by the solution proposed in the reference. It is well known that in order to support a valid rejection the art must also suggest that it would accomplish applicant's results. This was stated by the Patent Office Board of Appeals, in the case Ex parte Tanaka, Marushima and Takahashi (174 USPQ 38), as follows:

Claims are not rejected on the ground that it would be obvious to one of ordinary skill in the art to rewire prior art devices in order to accomplish applicants' result, since there is no suggestion in prior art that such a result could be accomplished by so modifying prior art devices.

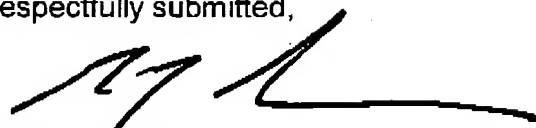
In view of the above presented remarks and amendments, it is believed that claims 21 and 22 should be considered as patentably distinguishing over the art and should be allowed.

As for the dependent claims, these claims depend on claims 21 and 22 correspondingly, they share its presumably allowable features, and therefore it is respectfully submitted that they should be allowed.

Reconsideration and allowance of the present application is most respectfully requested.

Should the Examiner require or consider it advisable that the specification, claims and/or drawings be further amended or corrected in formal respects in order to place this case in condition for final allowance, then it is respectfully requested that such amendments or corrections be carried out by Examiner's Amendment, and the case be passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance, he is invited to telephone the undersigned (at 631-549-4700).

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'MJ Striker', with a long horizontal flourish extending to the right.

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## REPLACEMENT SHEET

storing desired positions of processing device  
and processing head in work region and in  
calibration region



moving processing device and  
processing head into work region



testing work poses of processing  
device and processing head in work region



comparing the tested work poses with  
nominal work poses and determining  
presence or absence of deviations



moving processing device and  
processing head into calibration region



In the event of deviations,  
adjusting work poses of the  
processing device with processing head